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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,021

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Russell Vaughan Meddes

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11/23/2009

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EXAMINER

BERGIN, JAMES S

ART UNIT

PAPER NUMBER

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MAIL DATE

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11/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,021	Applicant(s) MEDDES ET AL.	
	Examiner JAMES S. BERGIN	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/21/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 10-23, 25 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 1, 10-23, 25 and 27-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. In view of the response and amendment to the claims filed 8/21/2009 the following revised restriction is made, this new restriction requirement replacing the restriction requirement mailed on 4/13/2009.

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1, 10-18, 29-32, drawn to **a liner** comprising a plastics material matrix having at least one non-explosive filler embedded therein, the liner comprising first and second portions comprising different ratios of filler to matrix.

Group II, claim(s) 19-20, drawn to a **shaped charge perforator** comprising a liner.

Group III, claim 21, drawn to a **perforator gun** comprising one or more shaped charge perforators.

Group IV, claim(s) 22, drawn to **a compound** that can be used in the manufacture of a liner, the compound comprising a plastics material matrix having at least one non-explosive filler embedded therein and in which the filler volume comprises 45% to 85% of the combined volume of filler to matrix.

Group V, claim(s) 23 and 25, drawn to **a manufacturing method for a liner** for a shaped charge perforator comprising compounding a matrix of plastic material with particulate filler under vacuum.

Group VI, claim(s) 27 and 28, drawn to **a method of perforating a borehole** by means of a perforating gun to improve the fluid outflow from the borehole.

3. The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the shared technical feature of liner or compound for use in manufacturing a liner comprising a plastics

Art Unit: 3641

material matrix having at least one non-explosive filler embedded therein, the liner compound comprising a plurality of portions comprising different ratios of filler to matrix, is known in the prior art (see at least Collins et al. US 6,371,219 B1; see Fig. 2; col. 2, line 50 to col. 3, line 38, portions of the Collins et al. liner inherently comprising a range of different ratios of metallic fillers to matrix of Collins - Collins discloses that numerous combinations of metal fillers can be used in the matrix, in powder form and in other forms) and therefore does not comprise a special technical feature that is unknown in the prior art. Therefore unity of invention between Groups 1-VI is not present. To re-search and re-examine all the invention groups I through VI would place an excessive burden on the examiner.

4. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Choose between Species E and Species F, as follows:

Species E, the embodiment wherein the filler is a fiber (claim 14).

Or

Species F, the embodiment wherein the filler is a flake (claim 15).

Choose between Species G, and Species H as follows:

Species G, the embodiment wherein the filler is a metallic material (claim 32).

or

Species H, the embodiment wherein the filler is a non-metallic material (claim 16).

5. Applicant is required, in reply to this action, to elect species (as directed above) to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any

Art Unit: 3641

claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

6. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the species, as outlined above, are patentably distinct alternate embodiments and are not linked by a special technical feature that was unknown in the prior art. The shared technical feature of liner or compound for use in manufacturing a liner comprising a plastics material matrix having at least one non-explosive filler embedded therein, the liner compound comprising a plurality of portions comprising different ratios of filler to matrix, is known in the prior art (see at least Collins et al. US 6,371,219 B1; see Fig. 2; col. 2, line 50 to col. 3, line 38, portions of the Collins et al. liner inherently comprising a range of different ratios of metallic fillers to matrix of Collins - Collins discloses that numerous combinations of metal fillers can be used in the matrix, in powder form and in other forms) and therefore does not comprise a special technical feature that is unknown in the prior art. To re-search and re-examine all the species (as outlined above) would place an excessive burden on the examiner.

7. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does

Art Unit: 3641

not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. BERGIN whose telephone number is (571)272-6872. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Application/Control Number: 10/575,021

Page 6

Art Unit: 3641

Customer Service Representative or access to the automated information system, call
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James S. Bergin/

Primary Examiner, Art Unit 3641